D.T.E. 03-121
Information Request: NSTAR-DOER-1-20

April 6, 2004

Attachment NSTAR-DOER-1-20(a)

Meeting Outline – Draft Regulation for Engines and Turbines (E&T)
9/25/03

WELCOME—INTRODUCTIONS

BACKGROUND

- Over 5000 diesel engines in MA (NESCAUM report estimate)
- 79% are emergency engines
- 70 % below current permitting thresholds
- Diesel emissions – PM (toxics), NOx, CO, etc
- Important to future SIPs (ozone and PM)
- Turbines (micro-turbines)

Current Regulations

Engines + Turbines

- New Emergency E&T: 300kW to 1 MW – 7.03 "Permit by Rule"
  - No Emission Limits
  - 300hr/yr limit, muffler, don't cause a condition of air pollution
  - Keep records & notify DEP of installation.

- New Non-Emergency > 300kw & Emergency > 1 MW
  - 7.02 review and approval
  - BACT
    "Best Available Control Technology"

APPROACH

- Basis for Draft Regulation
  - The Regulatory Assistance Project Model Rule (1yr ago) (www.raponline.org) Not complete consensus
  - EPA's Non-Road Engine Program
  - EPA's Clean Fuel Program (ultra low sulfur diesel – ULSD)
  - Recent DEP BACT Determinations
  - Vendor information
  - Certification by manufacturers of engine families } gets away from pre-construction approvals (saves 1-4 months)
  - Certification by owners/operators of installation, design and operational standards

DRAFT REVIEW

SUMMARY

- General Requirements for new E&T
  - All liquid fueled units would burn ULSF, 500ppm, 15ppm by mid 2006
  - Certification of compliance with emission limits, stack height and dispersion, sound, visible emission, and O & M requirements (similar to boiler ERP)
  - Record keeping, monitoring and testing requirements.

Phone number on Interc. Agreement?

Draft Work in Progress – For internal use only 9/10/03

310 CMR 7.20 Engines and Combustion Turbines

(1) Definitions

Emergency means an electric power outage due to failure of the grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster. Emergency shall also mean when the imminent threat of a power outage is likely due to failure of the electrical supply or when capacity deficiencies result in a deviation of voltage from the electrical supplier to the premises of three percent (3%) above or five percent (5%) below standard voltage.

Engines mean spark ignition and compression ignition stationary reciprocating internal combustion engines.

Rated Power Output means the maximum electrical or equivalent mechanical power output stated on the nameplate affixed to the engine or turbine by the manufacturer.

Supplier means a person that manufactures, assembles, or otherwise supplies engines or turbines.

Turbine means a stationary combustion turbine.

(2) General Applicability

(existing regs or large unchanged)

(a) 310 CMR 7.20 in its entirety shall apply to engines and combustion turbines that are installed on and after July, 2004 and that are not subject to Prevention of Significant Deterioration (40 CFR 52.21) or Non-Attainment Review at 310 CMR 7.00: Appendix A.

(b) Engines that operate in a manner subject to 40 CFR 89, 90, 91, and 92 are exempt from the requirements of 310 CMR 7.20 in its entirety.

(3) Emergency Engines and Turbines

(a) Applicability 310 CMR 7.20(3) shall apply to all emergency engines with a rated power output equal to or greater than 37kW and emergency turbines with a rated power output less than 1 MW that are constructed, substantially reconstructed or altered after July 1, 2004. Peaking power units, load shaving units or units in an energy assistance program are subject to the requirements of 310 CMR 7.20(4).

1. Emergency turbines with a rated power output equal to or greater than 1 MW shall comply with the provisions of 310 CMR 7.02(5).
2. Emergency engines and turbines that are subject to 310 CMR 7.02(8)(i) or 310 CMR 7.03(10) shall continue to be subject to the

requirements of such sections as applicable and the fuel requirements of 310 CMR 7.20(3)(c).

3. Emergency engines and turbines subject to 310 CMR 7.20(3) are not subject to the requirements of 310 CMR 7.02(5).

(b) Emission Limitations Emergency engines and turbines must comply with the emission limitations set forth in this section.

1. Emergency engines with a rated power output equal to or greater than 37 kW but less than 1 MW must comply with the applicable emission limitations set by the US EPA for non-road engines (40 CFR 89) at the time of installation. The owner or operator of an emergency engine subject to the requirements of 310 CMR 7.20(3)(b)1. must obtain from the supplier, a statement that a certificate of conformity has been obtained from the Administrator pursuant to 40 CFR 89.105. Any engine certified under the US EPA non-road standards is automatically certified to operate as an emergency engine pursuant to 310 CMR 7.20(3).
2. All emergency engines with a rated power output equal to or greater than 1 MW shall comply with the emission limitations in Table 1 of this subsection.

Table 1
Emission Limitations – Emergency Engines

Rated Power Output	Oxides of Nitrogen	Carbon Monoxide	Particulate Matter
≥1 MW to < 2MW	18.3 lbs/MW-hr	5.0 lbs/MW-hr	0.45 lbs/MW-hr
≥ 2 MW	16.3 lbs/MW-hr	1.5 lbs/MW-hr	0.45 lbs/MW-hr

3. All emergency turbines with a rated power output less than 1 MW shall comply with the emission limitations contained in Table 2.

Table 2
Emission Limitations – Emergency Turbines

Rated Power Output	Oxides of Nitrogen
< 1 MW	0.60 pounds/MW - hr

(c) Fuel Requirements No person shall accept delivery for burning in any engine or turbine subject to 310 CMR 7.20(3), diesel fuel that does not meet the current U.S. Environmental Protection Agency sulfur limits for fuel as implemented and allowed by 40 CFR 80.29, 40 CFR 80.500(a), and 40 CFR 80.520(a) and (b).

(d) Operational Requirements

1. Hours of Operation The engine(s) or turbine(s) shall not be operated more than 300 hours during any rolling 12-month period. This operating restriction includes normal maintenance and testing procedures as recommended by the manufacturer and periods when the primary power source for a facility has been lost during an emergency, such as a power outage, an on site disaster or an act of God. A non-turnback hour counter shall be installed, operated and maintained in good working order on each unit.
2. Operation and Maintenance The engine(s) or turbine(s) shall be operated and maintained in accordance with the manufacturer's recommended operating and maintenance procedures.
3. Sound Engines, turbines and associated equipment shall be constructed, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10 Noise.
4. Stack Height and Emission Dispersion
    a. All engines or turbines shall utilize an exhaust stack that discharges so as to not cause a condition of air pollution. The stack height shall be a minimum of ten feet above, the lower of, the facility rooftop or the engine or turbine enclosure. Particular care must be taken to locate stack exits to avoid impact with building fresh air intakes.
    b. Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted combustion gases, including but not limited the to rain protection devices "shanty caps" and "egg beaters".
    c. Engines and Turbines with a rated power output equal to or greater than one MW shall be equipped with a stack with a minimum stack height of 1.5 times the height of the building on which the stack is located. If the stack is lower than 1.5 times the building height or lower than the height of a structure that is within 5L of the stack (5L being five times the lesser of the height or maximum projected width of the structure), an EPA Guideline air quality model shall be run to document that the operation of the applicable engine or turbine will not cause an exceedance of any National Ambient Air Quality Standard.

5. Visible Emissions Engines and turbines must comply with all the requirements of 310 CMR 7.06(1) (a) & (b).

(e) Emission Certification, Monitoring and Testing

1. Certification No person shall cause, suffer, allow, or permit the installation and subsequent operation of an emergency engine or emergency turbine unless said person has certified compliance with the requirements of 310 CMR 7.20(3) in its entirety in accordance with the provisions of 310 CMR 70.03 Compliance Certification Requirements. Certification shall include a statement that the installed engine or turbine is capable of complying with the emission limitations for the first three years of operation.
2. Monitoring The Department may require emission or other monitoring to assure compliance with the requirements of 310 CMR 7.20(3).
3. Testing Tests to certify compliance with emission limitations must be performed in accordance with EPA reference Methods, California Air Resources Board Methods, or equivalent methods as approved by the Department. Particulate matter, from liquid fuel reciprocating engines, shall be determined by International Organization for Standardization Method 8178. Testing shall be conducted at full design load of the engine or turbine. The Department may require emission or other testing to assure compliance with the emission limitations or fuel requirements.

(f) Record Keeping and Reporting The owner or operator shall maintain records described in 310 CMR 7.20(3)(f)1. through 4. Such records shall be made available to the Department or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 310 CMR 70.03 Compliance Certification Requirements.

1. Information on equipment type, make and model, and rated power output; and
2. A monthly log of hours of operation, gallons of fuel used, fuel type, sulfur content, and heating value. A monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site; and
3. Purchase orders, invoices, and other documents to support information in the monthly log.
4. Copies of certificates and other information from the manufacturer.

everything below 50kw exempt?

(4. Engines and Turbines ~~Not permitted?~~

(a) Applicability 310 CMR 7.20(4) in its entirety shall apply to engines with a rated power output equal to or greater than 50kW and to turbines with a rated

power output less than or equal to 10 MW that are constructed, substantially reconstructed, or altered on or after July 1, 2004.

1. Engines and turbines subject to 310 CMR 7.20(3) are not subject to the requirements of 310 CMR 7.20(4).
2. The owner or operator of any engine or turbine subject to 310 CMR 7.20(4) to be operated as a peaking power production unit, load shaving unit, or unit in an energy assistance program, may file a Comprehensive Plan Application required by 310 CMR 7.02(5) for approval of such unit in lieu of complying with the requirements of 310 CMR 7.20(4). Application must be made and Department written approval granted prior to construction, substantial reconstruction, or alteration.

(b) Emission Limitations Engines or turbines subject to 310 CMR 7.20(4) shall comply with the emission limitations established in Table 3 and 4 below.

1. A supplier of an engine or turbine may seek to certify that its engines or turbines meet the emission limitations established in Tables 3 and 4. Certification will apply to a specific make and model number of engine or turbine. Certification means that the engine or turbine is capable of meeting the emission limitations for the lesser of 15,000 hours of operation or the first three years of operation. Supplier certification shall be on forms provided by the Department.
2. On or before December 31, 2010, the Department shall complete a review of the state of, and expected changes in, technology and emission rates. The purpose of this review will be to determine whether the Table 3 emission limitations for engines to be installed on and after July, 2012, should be amended.
3. Beginning in 2017 and every five years thereafter, the Department shall review the state of technology and emission rates and determine whether the emission limits defined in Tables 3 and 4 should be amended.
4. The Department may from time to time review the state of technology and emission rates to determine whether the emission limits defined in Table 4 should be amended.

tracking new interconnections ?

Table 3
Emission Limitations – Engines

Installation Date	Oxides of Nitrogen	Particulate Matter (Liquid Fuel)	Carbon Monoxide	Carbon Dioxide
On and after 1/1/04	0.6 lbs/MWh	0.7 lbs/MWh; ≥ 1 MW 0.09 lbs/MW	10 lbs/MWh	1900 lbs/MWh
On and after 1/1/08	0.3 lbs/MWh	0.07 lbs/MWh	2 lbs/MWh	1900 lbs/MWh
On and after 1/1/12	0.15 lbs/MWh	0.03 lbs/MWh	1 lb/MWh	1650 lbs/MWh

Table 4
Emission Limitations – Turbines

Rated Power Output	Oxides of Nitrogen	Ammonia	Particulate Matter	Carbon Monoxide
Less than 1 MW	0.47 lbs/MW-hr Gas		0.10 lbs/MW-hr	0.47 lbs/MW-hr Gas
1 to 10 MW	0.14 lbs/MW-hr Gas 0.34 lbs/MW-hr Oil	2.0 ppm	0.10 lbs/MW-hr	0.09 lbs/MW-hr Gas 0.18 lbs/MW-hr Oil

(c) Fuel Requirements No person shall accept delivery for burning in any engine or turbine subject to 310 CMR 7.20(4), diesel fuel that does not meet the current U.S. Environmental Protection Agency sulfur limits for fuel as implemented and allowed by 40 CFR 80.29, 40 CFR 80.500(a) and 40 CFR 80.520(a) and (b).

(d) Operational Requirements

1. Operation and Maintenance The engine(s) and turbine(s) shall be operated and maintained in accordance with the manufacturers recommended operating and maintenance procedures.

2. Sound Engines, turbines and associated equipment shall be constructed, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10 Noise.

3. Stack Height and Emission Dispersion
   a. All engines or turbines shall utilize an exhaust stack that discharges so as to not cause a condition of air pollution. The stack height shall be a minimum of ten feet above, the lower of, the rooftop or the engine or turbine enclosure. Particular care to locate stack exits to avoid impact with building fresh air intakes.
   b. Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted combustion gases, including but limited to, the rain protection devices "shanty caps" and "egg beaters".
   c. Engines and Turbines with a rated power output equal to or greater than one MW shall be equipped with a stack with a minimum stack height of 1.5 times the height of the building on which the stack is located. If the stack is lower than 1.5 times the building height or lower than the height of a structure that is within 5L of the stack (5L being five times the lesser of the height or maximum projected width of the structure), an EPA Guideline air quality model shall be run to document that the operation of the applicable engine or turbine will not cause an exceedance of any National Ambient Air Quality Standard.

4. Visible Emissions Engines and turbines must comply with all the requirements of 310 CMR 7.06(1) (a) & (b).

(e) Emission Certification, Monitoring and Testing

1.Certification No person shall cause, suffer, allow, or permit the installation and subsequent operation of an engine or turbine unless said person has certified compliance with the requirements of 310 CMR 7.20(4) in its entirety in accordance with the provisions of 310 CMR 70.03(2), (3), and (4). Certification shall include a statement from the manufacturer that the installed engine or turbine is capable of complying with the emission limitations for 15,000 hours of operation or the first three years of operation, whichever comes first.

2.Monitoring The Department may require emission or other monitoring to assure compliance with the requirements of 310 CMR 7.20(4).

3. Testing Tests to certify compliance with emission limitations must be performed in accordance with EPA reference Methods, California Air Resources Board Methods, or equivalent methods as approved by the Department. Particulate matter, from liquid fuel reciprocating engines, shall be determined by the International Organization for Standardization

Method 8178. The Department may require emission or other testing to assure compliance with the emission limitations or fuel requirements.

(f) Record Keeping and Reporting The owner or operator shall maintain records described in 310 CMR 7.20(4)(f)1. through 4. Such records shall be made available to the Department or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 310 CMR 70.03 Compliance Certification Requirements.

1. Information on equipment type, make and model, and maximum power output; and
2. A monthly log of hours of operation, gallons of fuel used, fuel type and heating value, and a monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site; and
3. Purchase orders, invoices, and other documents to support information in the monthly log.
4. Copies of certificates and other information from the manufacturer.

(5) Change in Operational Status An owner or operator of an engine or turbine subject to the requirements of 310 CMR 7.20(3) Emergency Engines and Turbines may elect to remove the hours of operation restriction to operate in a non-emergency by complying with either of the two following methods.

(a) Submit an application for approval and receive approval under the requirements of 310 CMR 7.02(5); or
(b) Certify to the Department that the engine or turbine meets all applicable requirements of 310 CMR 7.20(4).

D.T.E. 03-121
Information Request: NSTAR-DOER-1-20

April 6, 2004

Attachment NSTAR-DOER-1-20(b)

Bingham, Gerry (ENE)

From: Bingham, Gerry (ENE)
Sent: Monday, September 29, 2003 2:36 PM
To: Breger, Dwayne (ENE)
Subject: FW: Meeting on draft engine and turbine regulations for Massachusetts

Engine and Turbine Regulations...

I thought the below facts might interest you.

There was discussion about whether CHP should receive credits as recommended in the RAP model rule. Northeast CHP (chair?) advocated strongly for this. Rick Weston at RAP would be able to get us a copy of the model rule.

CLF (Seth Kaplan) advocated for something that favors CHP regionally using enviro net-benefit criteria but not necessarily using the blanket ("blunt force") treatment from the RAP rule. (Benefit from CHP in Boston not so likely.)

Bob Donaldson said some change may be warranted to address landfill gas and bio gas; possibly a CO2 exemption?

If you want an attendance sheet, Bob can help you. He sent out a thank you for attending email to the folowwing:
Bob Rio (E-mail); Colon P (E-mail); Dale Raczynski (E-mail); Dave Barstow (E-mail); Dennis Plaster (E-mail); Doug McVay (E-mail); George Lipka (E-mail); Gerry Bingham (E-mail); Jennifer Bryan (E-mail); Jim Sinclair (E-mail); Jim Watts (E-mail); Joe Sachecki (E-mail); Mark Kalpin (E-mail); Pentti J. Aalto (E-mail); Robb Homolka (E-mail); Scot Lengel (E-mail); Seth Kaplan (E-mail)

-----Original Message-----
From: Donaldson, Robert (DEP) [mailto:Robert.Donaldson@state.ma.us]
Sent: Thursday, September 11, 2003 1:19 PM
To: dennis_plaster@smilton.com; dbarstow@kraftpower.com; rar@aimnet.org; skaplan@clf.org; frank@clf.org; jbluestein@eea-inc.com; Bingham, Gerry (ENE); Rapweston@aol.com; hyoshimura@iso-ne.com; Harrold, Robert (DPU); Perlmutter, Barry (DPU); rapp.steve@epa.gov; lwitherspoon@cat.e-mail.com
Cc: Seidman, Nancy (DEP); Altobelli, Marc (DEP)
Subject: Meeting on draft engine and turbine regulations for Massachusetts

The Massachusetts Department of Environmental Protection, Bureau of Waste Prevention, Business Compliance Division will be proposing revisions to the Air Pollution Control Regulations. The proposed revisions will address emissions from commercial/industrial size engines and combustion turbines.

Attached is a copy of a draft of proposed regulation revisions. The Business Compliance Division will be hosting a meeting to discuss the draft, answer questions and take informal comments. We invite you to participate at this meeting to be held on Thursday September 25th, 2003 in the eighth floor conference room in the Department's One Winter Street Boston office. The meeting will commence at 9:30 a.m.

We look forward to seeing you on the 25th.

Bob Donaldson
Department of Environmental Protection
Business Compliance Division
One Winter Street
Boston, MA 02108
Voice: (617) 292-5619

FAX: (617) 556-1063
(617) 292-5832
www.state.ma.us/dep

Memo

To: Gerry, Dwayne, Cindy, Rob S.
Rob G.

Fr: DOC

Dt: 11/3/03

Re: DEP Regs on DG.

The attached letter to DEP brings these regs to my attention for the first time. The DG industry expresses concern about their impact on renewables development, esp. landfill gas.

I am troubled I didn't know this was going on, that they might hurt renewables and that we made no comments. Let's discuss, ASAP

Bingham, Gerry (ENE)

From: Bingham, Gerry (ENE)
Sent: Tuesday, November 04, 2003 11:17 AM
To: OConnor, David (ENE); Breger, Dwayne (ENE); Arcate, Cynthia (ENE)
Subject: DEP Regs for engines and turbines

I've received a return call from Bob Donaldson regarding the status of the DG Regs. Bottom line, no need to pursue until David is back.

I have transcribed his comments literally from his voicemail to me:
- There's no public hearing schedule as of now;
- Will go to hearing in late-winter;
- NECA didn't make the original date due to board delays;
- Still getting various bits from various people (that's okay);
- The comments were helpful;
- Changed directions on a few things because of comments.

I recommend we consider filing comments when this goes to hearing in the late winter if we determine that the landfill gas issue is still unresolved (emissions standards making RPS eligible technologies uneconomic). There is also a potential CHP credit issue to look at.

Gerry Bingham
617-727-4732 x:178
Team Leader / Market Development
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Northeast Energy and Commerce Association

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E-MAIL:lois@necanews.org • WEB: www.necanews.org

October 28, 2003

Via E-mail and First Class Mail

Robert Donaldson, Chief
Business Compliance Division
Department of Environmental Protection
One Winter Street
Boston, MA 02108

Re: Proposed Rulemaking for 310 CMR 7.20, Engines and Combustion Turbines

Dear Mr. Donaldson:

On behalf of the Northeast Energy and Commerce Association ("NECA"), I am writing to thank the Department for considering the following comments concerning the September 10, 2003 initial draft of the proposed rulemaking (310 CMR 7.20) for engines and combustion turbines. Given the extreme importance of this proposal to, and widespread adverse impact on, industry and commerce within the Commonwealth, NECA believes that the Department must implement an expanded notice and comment process in the development, evaluation, and proposed adoption of this rulemaking. This expanded process must include a serious consideration of true stakeholder comments and concerns, and a full and realistic evaluation of true costs, risks and benefits of the proposal to the citizens and industries of the Commonwealth. In addition, the Department must carefully evaluate, in conjunction with other agencies of the Commonwealth, the extent to which implementation of the Department's proposal would jeopardize the development of renewable energy sources and the supply of clean burning natural gas in the Commonwealth.

NECA is New England's oldest and most broadly based, non-profit trade association serving the competitive electric power industry. NECA promotes environmentally sound, reliable and cost effective wholesale and retail markets for the production and delivery of electric power supply. NECA's diverse membership includes developers and owner/operators of competitive power projects, regulated and merchant transmission and distribution companies, power marketers and traders, fuel and equipment suppliers, power consumers and service providers to the power industry.

As indicated in our initial letter to you concerning this matter, it is highly likely that the Department's proposed rulemaking will have a substantial

negative business impact on many of NECA's members. Moreover, the proposed rule stands to stifle the development of highly efficient renewable energy and distributed generation technologies in the Commonwealth, an outcome that is contrary to many initiatives recently undertaken by other Massachusetts agencies. We do not believe that it is the Department's intent to develop rules that run counter to other Massachusetts initiatives that promote "green" resources and reliability of the electric supply system. To help illustrate these potential conflicts, we have provided examples of situations that come immediately to mind.

- Landfill gas projects, which qualify under the Renewable Portfolio Standards ("RPS") and help achieve the goal of "green" power development, would find it nearly impossible to meet the stringent emissions limits contained in the draft proposed regulation. The inherent characteristics of the landfill gas fuel preclude the use of catalytic emission control systems that would be required to meet most of the proposed NOx and CO emissions limits. NECA believes that other RPS-eligible bio-fuels would be similarly affected.

- The regulation as proposed will seriously discourage the development of traditional distributed generation resources which will be vital to bridge the gap to developing technologies such as microturbines and fuel cells in the coming decades. This again may directly erode the reliability of our electrical supply and competitiveness of our declining manufacturing sector, and may even have serious national security implications.

- Similarly, any new turbines and engines at gas pipeline compressor stations, which may be necessary to deliver additional high pressure natural gas to the Commonwealth, would not be able to meet the emissions limits as proposed.[1] The only alternative may be electric-driven compressors, which would present serious concerns regarding the continued reliability of the Commonwealth's energy infrastructure.

- Finally, since no additional incentive has been proposed to promote highly efficient combined heat and power ("CHP") projects (beyond the fact that the proposed standards are output-based), NECA fears that developers will favor neighboring states or regions when selecting sites for these environmentally advantageous energy projects. The lack of such incentives lies contrary to the Regulatory Assistance Project ("RAP") model rules, rules being developed in Connecticut, and policies being promoted by the US EPA.

NECA has always favored certainty and streamlining of the environmental approval/permitting process and we appreciate the efforts that the Department has made towards these goals in developing this regulation. However, we feel that the regulation in its current form would provide utility in such a limited number of instances that little advancement toward this outcome would actually be realized. NECA can only support the draft proposed

[1] These prime movers operate at highly variable loads since they must be load following. They also have high exhaust gas temperatures since they are not suitable for heat recovery/cogeneration applications. For these reasons, they are unsuitable applications for post-combustion control technologies such as SCR which are necessary to meet the emissions limits in the draft proposed regulation.

regulation if it contains, as it's basis, aggressive yet reasonable emissions limits, and serves only as a voluntary alternative to the current 310 CMR 7.02 permitting process for all engines and turbines. Currently, the option of 7.02 permitting is apparently not available to turbines and engines other than those to be operated as peaking power units, load shaving units, or units in energy assistance programs (per 7.20(4)(a)2) or emergency engines and turbines electing to operate in non-emergency situations (per 7.20(5)).

NECA has the following additional specific comments:

- As recommended in the RAP model rules, the emissions limits for emergency engines and turbines should simply be set equal to the Federal non-road engine emission limits specified in 40 CFR 89. This would be consistent with the current Connecticut proposal as well as the recent recommendation of California's South Coast Air Quality Management District (after an extensive analysis)[2], two agencies very well respected for their environmental records.

- The definition for "emergency" should be broadened to cover other defined "emergency" conditions, such as "periods during which the New England Region System Operator begins voltage reductions or involuntary load interruptions within Massachusetts." This language, as found in the current draft of Connecticut's distributed generation rule recognizes the emergency nature of electrical supply interruptions on a more regional and proactive basis. Moreover, the language helps prevent regional inconsistencies in environmental regulations that may further degrade the Commonwealth's industrial base.

- The proposed limits for oxides of nitrogen in most cases do not appear to be reasonable, and are well below those that would be justified by the application of Best Available Control Technology (BACT). It is imperative that the Department prepare and circulate for comment such a BACT analysis prior to establishing final emission limits.

- NECA believes that the turbine emissions limits in Table 4 should be deleted since the engine limits in Table 3 are extremely aggressive limits for both engines and turbines. NECA is not aware of any other governmental entity with more stringent limits than these for this source category. The Table 3 limits may at least allow for currently developing low emissions engine and turbine combustion technologies to mature and be implemented without the many disadvantages of post combustion control technologies, whereas the Table 4 limits would not. In addition, exceptions to the limits are necessary for prime movers in certain categories such as landfill gas and natural gas compression service as noted before. While different emissions standards can be set for different technologies and fuels, realistic limits for each technology/fuel must be established based on a technical support document that includes BACT analyses.

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[2] South Coast Air Quality Management District, "Staff Report for Amended Best Available Control Technology (BACT) Guidelines, Part D- Non-Major Polluting Facilities, Regarding Emergency Compression-ignition (Diesel) Engines", April 2003. http://www.aqmd.gov/hb/attachments/030624.exe

- The emissions limits for January 1, 2012 and beyond should be deleted since the ability of any technology to reasonably achieve these levels in that time frame is highly speculative today. The draft regulations contain a provision to review the future standards at the end of the year 2010 anyway and any changes deemed appropriate then could be proposed and implemented by 2012.

NECA is supportive of the Department's efforts to foster the development of improved combustion and pollution control technologies that would lower emissions of air pollutants and improve air quality in the Commonwealth. The ensuing requirements cannot be so stringent, however, that the Commonwealth's stated goals of promoting new technologies, increasing the availability of renewable energy, ensuring the reliability of the electrical supply system and improving environmental quality are not realized. NECA is hopeful that the Department will give further consideration to its proposal and will actively seek the input of all affected stakeholder groups. We are confident that through such a deliberative process, as demonstrated by our neighbors in Connecticut, the appropriate balance that is needed in this instance can be realized to the ultimate benefit of the environment and the regulated community alike.

I thank you in advance for your consideration of our comments. NECA looks forward to working with the Department on the evaluation and further development of this regulation.

Sincerely,

Lawrence W. Plitch
President
Northeast Energy & Commerce Assoc.

CC: Secretary Ellen Roy Herzfelder
Commissioner Robert W. Golledge, Jr.
Chairman Paul G. Afonso
Commissioner W. Robert Keating
Commissioner David L. O'Connor

9/25/03

DEP regs for smaller DG

Bob Donaldson / Nancy Seidman

Comments by 10/10

3-5% is from CT.

When Summer got hot, many on-site generators

does it match the OP-4 state ("eminent threat")

reluctant to cite OP-4 procedures (b/c change)

Jim Watts: small guys don't know

IEEE voltage measurements

* drops + stays there locally may be different from when OP-4 conditions hit.

Interconnect w/ DR?

Yes. Reason for the distinction between emergency and non-emergency.

Credit for CHP was featured in RAP model

Northeast CHP is in support (includes DEP?)

CLF: if you do it right there could be enviro benefit

in Boston not so likely

blunt force blanket credit in RAP rule should be more carefully crafted -- prove net-benefit

question of displacement

Bob D.: There are a lot of other issues too

low Btu fuels should get credit too

shutting down Landfill gas (will not able to meet)

Bob: some change may be warranted

bio gas would have similar. Use 702 exemption?